

LNG AND LPG

Production and Exports

Indonesia is the world's leading exporter of LNG with about 26.1 percent market share in the world market and over 34.5 percent share in the Asia and Pacific market. In 2000, 55 percent of Indonesia's marketable natural gas was converted into LNG. The remainder was used in the production of LPG, used as fuel for electric power generation, as fuel and feedstock for the petrochemical and fertilizer industries, and consumed or flared in connection with the production of oil. Indonesia signed its first long-term LNG contract in 1973, with the first shipment from Bontang in 1977 and the first shipment from Arun in 1978. Indonesia signed a number of additional LNG contracts between 1973 and 1995. Indonesia's LNG exports are under long-term contracts between Pertamina and its customers.

Currently, Indonesia has the capacity to produce a total of 31.6 million MT of LNG at the Arun plant in North Sumatra and the Badak plant in East Kalimantan. Actual production reached 27.3 million MT in 2000, 8.4 percent lower than the 29.8 million MT produced in 1999. Most of this production is exported. LNG exports decreased by 6.8 percent to 27 million MT in 2000. A major cause of LNG production and export declines was the closure of two of the Arun LNG plant's six original trains in April 2000.

World LNG Trade in 2000

Exporting Country	Billion M3	%
Indonesia	35.7	26.1
Algeria	26.3	19.2
Malaysia	21.0	15.3
Qatar	14.0	10.2
Australia	10.1	7.4
Brunei	8.8	6.4
UAE	6.9	5.0
Nigeria	5.6	4.1
Trinidad	3.5	2.6
Oman	2.5	1.8
USA	1.7	1.2
Libya	0.8	0.6
Total	136.9	100.0

LNG remained a significant earner of foreign exchange, with a 51.5 percent increase in earnings in 2000. LNG exports were valued at \$6.8 billion from \$4.5 billion in 1999. Japan remained Indonesia's top market for LNG, with 67 percent of the total, followed by South Korea (23 percent) and Taiwan (10 percent).

Japanese customers (the largest being Kansai, Chubu, Kyushu and Osaka Gas) have contracted to import 18.2 MMT a year of LNG for the contract period 1999 to 2017. Korea Gas has contracted to import 8.2 MMT/Y and Taiwan 3.1 MMT/Y over the same period.

The Government announced a priority to develop the Tangguh LNG project in Irian Jaya. (A description of the Tangguh project is in the "Natural Gas" chapter.) Another important LNG project is the potential development of train "T" at the Badak LNG plant in Bontang, East Kalimantan. The Indonesian government maintains that it can find sufficient buyers to make both projects possible, and is taking preliminary steps to develop both. With 6.0 million MT/Y from the new Tangguh LNG facility projected to come on line in 2005, Indonesia is still well positioned as a major LNG supplier for the near future. The Arun facility, however, is expected to produce only 3.0 million MT in 2010.

Arun

ExxonMobil Indonesia was forced to suspend natural gas production for a four-month period – from March to July 2001 -- from its onshore Arun, South Lhoksukon, and Pase fields in North Aceh due to deteriorating security. While ExxonMobil had continued to operate even as clashes between separatist Free Aceh Movement (GAM) forces and the Indonesian military rose over the last two years, company officials said attacks and harassment had been increasingly targeted on ExxonMobil facilities and personnel beginning in January 2001.

The decision to suspend gas production also forced the Arun LNG plant, fertilizer plants PT Pupuk Iskandar Muda and PT ASEAN Fertilizer, and a pulp paper plant facilities which depend on ExxonMobil's natural gas and condensate supplies to suspend operations. ExxonMobil continued to produce 300 million standard cubic feet of gas per day from its North Sumatra Offshore (NSO) field during the suspension, sufficient to maintain minimal safety and electrical systems at its own operations and the associated facilities. Arun resumed LNG shipments with the loading of LNG tanker Wakaba Maru on August 16.

ExxonMobil has extracted about 70 percent of the gas reserves in its Arun gas field and gas deliveries to the four-train Arun LNG plant have started to decline. LNG production from the PT Arun Liquefied Natural Gas plant decreased in 2000 to 6.7 million MT, compared with 11.4 million MT in 1999. Arun is operated

by PT Arun LNG Company, of which 55 percent is owned by Pertamina, 30 percent by ExxonMobil Indonesia and 15 percent by Japan Indonesia LNG Company (JILCO). ExxonMobil is the sole supplier of natural gas to Arun, whose production capacity is now about seven million MT per annum.

Production from the original Arun gas field was supplemented with development of discoveries at three other locations: the South Lhoksukon gas field, located 15 kilometers from Arun; the Pase gas field, located north of Arun; and the North Sumatra Offshore (NSO) gas field. The NSO field, which sits 100 km offshore from the Arun LNG plant in approximately 108 meters of water, is the deepest offshore production platform in Indonesia.

Bontang

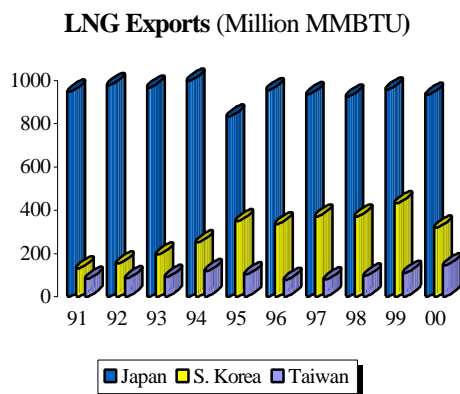
The eight-train (A through H) Bontang facility in Badak, East Kalimantan has 21.6 million MT of production capacity.

The plant is operated by PT Badak NGL Company, which is 55-percent owned by Pertamina, 20-percent by Vico (which is 50-percent owned by BP), 10-percent by TotalFinaElf, and 15-percent by Japan Indonesia LNG Company (JILCO). Gas is supplied from production sharing arrangements between Pertamina, Unocal, Vico and Total. LNG production from the Bontang facility in 2000 was 20.6 million MT, up from 18.4 million MT in 1999.

In 1995, Pertamina signed two 20-year contracts for Bontang's "H" train with Korea Gas Company and Chinese Petroleum Corporation (Taiwan).

Indonesia advanced plans to build a ninth LNG train (train I) at the Bontang facility with a request in 2001 for technical bids on a Front End Engineering & Design (FEED) package. Among the bidders were Kellogg, Brown, and Root & JGC; Technip & Rekayasa Industri; and Chiyoda and IKPT. The Engineering, Procurement, and Construction (EPC) tender is scheduled to be issued at the end of 2001. The project is expected to be completed in 2004, with a designed capacity of 3.0 million metric tons per year.

Australia, Hong Kong and Singapore. LPG is sold at LPG stations in Jakarta, Bandung and Denpasar.



Liquid Petroleum Gas

Total LPG production continued to decline in 2000 to 2.09 million MT, from 2.26 million MT in 1999 and 2.35 million MT in 1998. LPG production at five of Pertamina's refineries, however, increased to 767,000 MT in 2000 from 606,000 MT in 1999. The Arun LNG plant reported no LPG production from its LPG extraction plant in 2000, whereas it produced 216,000 MT in 1999. Over 62 percent of LPG production in 2000, valued at just under \$400 million, was exported to major markets: Japan, Taiwan,